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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,082	07/30/2001	Gregory Merle Pineo	60,680-531	2107
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DYKEMA GOSSETT PLLC 39577 WOODWARD AVENUE SUITE 300 BLOOMFIELD HILLS, MI 48304-5086			CIRIC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,082

Applicant(s)

PINEO ET AL.

Examiner

Ljiljana (Lil) V. Cirio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-15 and 17-20 is/are pending in the application.
4a) Of the above claim(s) 8-13, 19 and 20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 14, 18 and 1517 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the reply filed on March 8, 2005.
2. Claims 1 through 6, 8 through 15, and 17 through 20 remain in the application, all of the claims having been amended either directly or indirectly via the amendment to the claims filed on March 8, 2005.
3. The amendment filed on March 8, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: that *at least one of the plug walls defines a transversely located inlet or outlet opening therein as now specified in paragraph [0005]*—note that there is support in the originally filed disclosure for there being *both* an inlet opening and an outlet opening located in opposed plug walls, but that there is no support in the originally filed disclosure for there being *only one of* a transversely located inlet OR an outlet in the plug walls; that the actuator portion has *seal means for preventing flow out of the actuator portion* as now specified in paragraph [0005]—note that while there is support in the originally filed specification for the removable closure of the actuator housing having an associated O-ring seal, there is no specific support in the originally filed disclosure for the actuator portion having any other, equivalent seals or sealing means, and also no support for there being any flow within the actuator portion; and, that at least one, but not necessarily both, of the inlet and outlet openings in the plug walls is transversely located in its respective plug wall as now specified in paragraph [0006]—note that while there is support in the originally filed specification for both the inlet and the outlet openings in the plug walls being transversely located in the plug walls, there is no support in the originally filed specification

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for only one of the inlet and the outlet openings being transversely located in the plug walls and for another one of the inlet and outlet openings to be non-transversely located.

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

4. Applicant's arguments filed on March 8, 2005 have been fully considered but they are not persuasive.

While the amendments to the specification filed on March 8, 2005 have obviated the new matter objections as cited in the previous Office action, these amendments have added different new matter to the specification, thus meriting a new matter objection to the specification as outlined in greater detail below in the section of this Office action relating to the specification.

While the amendments to the claims filed on March 8, 2005 have obviated the new matter rejections of the claims under 35 U.S.C. 112, first paragraph, as cited in the previous Office action, these amendments have added different new matter to the claims, thus also again meriting a new rejection of the claims based on new matter.

While applicant's amendments to the claims filed on March 8, 2005 have generally obviated the rejections of the claims under 35 U.S.C. 112, second paragraph, as cited in the previous Office action, these amendments have introduced new indefiniteness into the claims as noted in greater detail below in the section of this Office action relating to 35 U.S.C. 112.

In response to applicant's argument that the Schaefer reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the bypass flow being against the side of the plunger in a radial or transverse direction, the transverse flow not causing the valve to open or close, the valve being an active device or an actual control device, and the flow through the transversely located inlet or outlet opening being continuous) are not recited in either the previously rejected claims or in the amended claims as currently rejected. Although the claims are interpreted in

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light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's arguments thus fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments thus also do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Election/Restrictions

5. Claims 8 through 13, 19, and 20 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 23, 2002.

Drawings

6. The drawings were received on November 19, 2003. These drawings are now approved in view of applicant's amendments and arguments.

Specification

7. The amendment filed on March 8, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: that *at least one of* the plug walls defines a transversely located inlet *or* outlet opening therein as now specified in paragraph [0005]—note that there is support in the originally filed disclosure for there being *both* an inlet opening and an outlet opening located in opposed plug walls, but that there is no support in the originally filed disclosure for there being *only one of* a transversely located

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inlet OR an outlet in the plug walls; that the actuator portion has *seal means for preventing flow out of the actuator portion* as now specified in paragraph [0005]—note that while there is support in the originally filed specification for the removable closure of the actuator housing having an associated O-ring seal, there is no specific support in the originally filed disclosure for the actuator portion having any other, equivalent seals or sealing means; and, that at least one, but not necessarily both, of the inlet and outlet openings in the plug walls is transversely located in its respective plug wall as now specified in paragraph [0006]—note that while there is support in the originally filed specification for both the inlet and the outlet openings in the plug walls being transversely located in the plug walls, there is no support in the originally filed specification for only one of the inlet and the outlet openings being transversely located in the plug walls and for another one of the inlet and outlet openings to be non-transversely located.

Applicant is required to cancel the new matter in the reply to this Office Action.

8. The disclosure is objected to because of the following informalities, for example: consistent terminology is not used throughout the specification in referring to the same set of inlet and outlet openings which are located in the plug walls. For example, in paragraph [0005] as amended, the inlet and outlet openings are referred to as “the *bypass valve* transversely located inlet or outlet openings”, whereas in paragraph [0006] as amended, the same openings are referred to as both “the *plug wall* inlet and outlet openings” and “the *bypass valve* transversely located inlet and outlet openings”. Consistent terminology should be used throughout the specification in referring to any given element in order to achieve the required clarity of disclosure.

Appropriate correction is required.

Claim Objections

9. Claims 1 through 6, 14, 15, 17, and 18 are objected to because of the following informalities: a duplicate claim number “1.” [claim 1, line 1] appears at the beginning of the claim after the status identifier; and, consistent terminology is not used throughout the claims in referring to the same set of

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inlet and outlet openings which are located in the plug walls. For example, in claims 1 through 6 as amended, the inlet and outlet openings are referred to as “*bypass valve transversely located inlet or outlet openings*”, whereas in claims 14, 15, 17, and 18 as amended, the same openings appear to be referred to as both “*plug wall inlet and outlet openings*” and “*the bypass valve transversely located inlet and outlet openings*”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1 through 6, 14, 15, 17, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, base claim 1 as amended now recites the limitations “at least one of the plug walls defining a transversely located inlet or outlet opening therein”, which attempts to encompass an undisclosed embodiment where the inventive apparatus comprises a plug portion having only a single transversely located opening, yet the originally filed disclosure does not provide any support for a valve configuration having only one opening in the plug portion.

Also, each of base claims 1 and 14 recites the limitations “the actuator portion having seal means for preventing flow out of the actuator portion”, which appears to be an attempt to use means-plus-function language to encompass various undisclosed alternative sealing equivalents, yet the originally filed specification only narrowly discloses an O-ring seal for preventing flow out of the actuator portion and fails to disclose any alternative equivalents.

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Finally, base claim 14 recites the limitations “at least one of the inlet and outlet openings in the plug walls being transversely located in its respective plug wall”, which attempts to encompass an undisclosed embodiment where the inventive apparatus comprises a plug wall portion having only a single opening which is transversely located in the plug walls.

None of the aforementioned limitations are fully supported by the originally filed disclosure and hence these represent new matter.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1 through 6, 14, 15, 17, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear to which preceding element(s) the term “therein” [claim 1, line 3] refers, thus rendering indefinite the metes and bounds of protection sought by claim 1 and all claims depending therefrom. Recommend replacing the term “therein” with a direct recitation of the element(s) referred to by the term.

The adjectives “transversely” and “transverse” are now used through the claims in an attempt to specify the relative location of the inlet/outlet flow opening(s) and the relative direction of the flow within the valve, but the claims fail to set forth any specific linear or planar element(s) relative to which either the flow openings or the flow is transverse, thus rendering indefinite the metes and bounds of protection sought by the claims.

With regard to each of base claims 1 and 14 which appear to attempt to invoke 35 U.S.C. 112, sixth paragraph, by citing the limitations “seal means for preventing flow out of the actuator portion”, applicant is reminded that a claim limitation is to be interpreted invoking 35 USC 112, sixth paragraph, only if the claim limitation uses the phrase “a means for” or “a step for” *modified with functional*

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language only, and *not* by structure, material or acts for achieving the specified function. In each of claims 1 and 14, however, while applicant appears to attempt to invoke interpretation according to 35 USC 112, sixth paragraph, by citing the limitations “seal means for preventing flow out of the actuator portion”, the limitations “seal means for preventing flow out of the actuator portion” is modified by sufficient structural limitations (i.e., “seal” immediately preceding “means”) and is thus *not* being interpreted as invoking 35 U.S.C. 112, sixth paragraph.

As written, with claim 6 being dependent on claim 1, the added limitations “said at least one of the plug walls defining said transversely located inlet or outlet opening” [claim 6, lines 2-3] appear to be merely an unnecessary double recitation of the limitations “at least one of the plug walls defining a transversely located inlet or outlet opening therein” [claim 1, lines 2-3]. It is recommended that the duplicative limitations in claim 6 be deleted.

Base claim 14 recites the limitations “the *bypass valve* transversely located inlet and outlet openings” in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim. Note that there would be sufficient antecedent basis for the limitations “the *plug wall* transversely located inlet and outlet openings” or simply “the plug wall inlet and outlet openings”.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for any additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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15. As best can be understood in view of the indefiniteness of the claims, claims 1 through 6, 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaefer (previously of record).

Schaefer discloses a bypass valve fluidly or operably connected to a heat exchanger essentially as claimed, including, for example: a heat exchanger 15 as shown in Figure 1 or as shown in greater detail in Figure 2 having a plurality of tubular members or heat exchange conduits or oil flow passages 55 having spaced-apart wall portions defining openings for the flow of fluid through the tubular members or passages 55; a bypass valve assembly or valve 21 or 72; a valve housing 13 or 62 having a hollow plug portion corresponding to the housing portion encompassing opposed walls and at least one “transversely” located flow opening in outlet boss 63 as shown in Figure 2 [see column 6, lines 3-41]; an actuator portion enclosed by cap 31 or 74 and located adjacent to the plug portion, the actuator or cap portion having a seal or seated flange 36 [see column 3, lines 56-58]; and, an actuator having a central shaft or member 35 releasably mounted in the cap or actuator portion 31 or 74 as well as a reciprocating barrel portion forming a plunger, the reciprocating plunger in turn comprising at least pins 50 and 46, boot 52, the hollow valve stem 44, the expansible thermal material 53 contained within the hollow valve stem 44, and poppet 22 extending axially into the plug portion of the valve 21 or 72 to form a “reciprocating barrel portion”.

Schaefer also discloses: enlarged distal end portions of the plate pairs of the heat exchanger 15 joined together to form adjacent inlet and outlet manifolds 58 and 59 as shown in Figure 2; the housing actuator portion including a removable closure or cap 31 or 74 located remote from the plug portion, the actuator central shaft or member 35 being attached to the removable closure or cap 31 or 74; and biasing means readable on spring 48 and/or 37. The actuator comprising central shaft or member 35 in combination with pins 50 and 46, boot 52, and expansible heat sensitive or thermal material 53 make up a thermal motor which extends axially upon being heated to a predetermined temperature and which

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retracts upon being cooled below the predetermined temperature [see column 4, lines 42-68; also, column 5, lines 1-9].

Note that, for the reasons previously set forth in the section of this Office action relating to 35 U.S.C. 112, the “seal means” limitations in the claims of the instant application are being broadly interpreted as encompassing a seal in general and *not* invoking 35 U.S.C. 112, sixth paragraph.

The reference thus reads on the claims.

16. Alternately and as best can be understood in view of the indefiniteness of the claims, claims 1 through 6, 14, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by James.

James [especially Figure 1] discloses a bypass valve fluidly or operably connected to a heat exchanger essentially as claimed, including, for example: a heat exchanger as shown in Figure 1 having a plurality of tubular members or heat exchange conduits or flow passages with spaced-apart wall portions defining openings for the flow of fluid through the tubular members or passages; a bypass valve 10; a valve housing 12 having a hollow plug portion including chambers 44 and 42 with opposed plug walls, at least one of the plug walls defining a transversely located inlet opening 30 or 32 or outlet opening 28 or 34; an actuator portion corresponding to valve body 14 and located adjacent to the plug portion, the actuator portion having a seal such as gasket 16 or retaining ring 58; a releasably mounted temperature responsive actuator mounted in the actuator portion having a central shaft 50 mounted in housing actuator portion and a reciprocating barrel or plunger including bimetallic discs 48 and valve disc 46 extending axially into the plug portion, the actuator being a thermal motor adapted to extend upon being heated to a predetermined temperature and to retract upon being cooled below the predetermined temperature [column 2, lines 58-72; column 3, lines 1-8]; a removable closure or threaded cap 13 located remote from the plug portion in the actuator portion of the valve, the actuator central shaft 50 being attached to the removable closure or threaded cap 13; biasing means in the form of spring 66 located in the housing 12

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for urging the actuator 50 to retract and the plunger including valve disc 46 to retract to unblock the flow through the valve 10 [see column 2, lines 52-57].

Note that, for the reasons previously set forth in the section of this Office action relating to 35 U.S.C. 112, the “seal means” limitations in the claims of the instant application are being broadly interpreted as encompassing a seal in general and *not* invoking 35 U.S.C. 112, sixth paragraph.

The reference thus reads on the claims.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. As best can be understood in view of the indefiniteness of the claim, claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over James in view of Seiler et al. (previously of record).

As explained in greater detail above, James discloses a heat exchanger and a bypass valve essentially as claimed. While James does disclose a heat exchanger having a plurality of spaced-apart wall portions, James does not disclose the heat exchanger as having tubular members formed of plate pairs and having enlarged distal end portions joined together to form adjacent inlet and outlet manifolds.

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Nevertheless, James does disclose that “any known conventional heat exchanger may be incorporated” [column 3, lines 12-14], and Seiler et al. specifically teaches connecting a temperature-responsive bypass valve 14 to adjacent inlet/outlet manifolds 16 and 20 of a heat exchanger 12 in a heat exchange system in order to permit temperature-based control of flow through the heat exchanger, where the heat exchanger 12 has tubular members formed of plate pairs and having enlarged distal end portions joined together to form adjacent inlet and outlet manifolds 16 and 20 in Figures 1 and 2 of Seiler et al.

Thus, it would have been obvious to one skilled in the art at the time of invention to modify the heat exchanger/bypass valve system of James by incorporating an art-known (and readily available) heat exchanger having tubular members formed of plate pairs with end portions joined together to form adjacent manifolds as taught by Seiler et al. into the heat exchanger/bypass valve system of James in order to optimize the temperature-based control of the flow of the working fluid through the heat exchanger while keeping design and manufacturing costs down.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tao, Hofmann, Jr., DeSalve, Mayfield, Jr. et al., Barnard, Jr., and Lamb et al. each discloses a thermal or thermostatic bypass valve.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner can normally be reached on Mondays through Fridays from 10:00 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, can be reached at 571-272-4930.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ljiljana (Lil) V. Ciric
Primary Examiner
Art Unit 3753